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EXAMINER	
DIRAMIO, JACQUELINE A	
ART UNIT	PAPER NUMBER
1641	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/596,956	CARTER ET AL.	
	Examiner	Art Unit	
	JACQUELINE DIRAMIO	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 48-66* is/are pending in the application.

4a) Of the above claim(s) *4,5 and 53-66* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-22 and 48-51* is/are rejected.

7)☒ Claim(s) *52* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2010* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/22/2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. Applicant's amendments to claims 1, 7, 11, and 12 are acknowledged, as well as the cancellation of claims 23 – 47 and addition of new claims 48 – 66.

2. Currently, claims 1 – 22 and 48 – 66 are pending. Claims 1 – 3, 6 – 22 and 48 – 52 are under examination. Claims 4, 5 and 53 – 66 are acknowledged as withdrawn as drawn to non-elected inventions (see below).

3. Newly submitted claims 53 – 66 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Inventions I (claims 1 – 22 and 48 – 52) and II (claims 53 - 66) are directed to related systems. The related inventions are distinct if: (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed have a materially different design, mode of operation, and effect. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

In particular, the invention of Group II recited in claims 53 – 66 comprises structural limitations not required or necessarily required by the invention of Group I because of the inclusion of various structural limitations and/or dependent claims in various orders, as well as newly recited and dependent claims not required by the invention of Group I. Therefore, the

systems recited in Groups I and II result in systems comprising different structures that do not necessarily overlap or result in obvious variants thereof.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 53 – 66 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Withdrawn Objections and Rejections

4. All previous objections to the drawings, specification, and claims are withdrawn in view of Applicant's amendments filed March 22, 2010.

5. The previous rejection of claims 1 and 7 under 35 U.S.C. 112, second paragraph, are withdrawn in view of Applicant's amendments filed March 22, 2010.

6. The previous rejection of the claims under 35 U.S.C. 102(e) as being anticipated by Hunt et al. (US 2008/0138797) is withdrawn in view of Applicant's amendments and arguments filed March 22, 2010, particularly given that Hunt et al. fail to teach that their "fluid control feature … controls progression of a leading edge of a bolus of material moving across the detection surface" (see page 23-25 of Applicant's arguments).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1 – 3, 6 – 8 and 12 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270).

Warthoe et al. teach a sensor system for detecting a target biological analyte, the system comprising:

a surface acoustic wave sensor comprising a sensor (detection) surface;

a binding ligand (capture agent) located on the sensor surface, wherein the binding ligand is capable of selectively attaching the target biological analyte to the sensor surface;

a detection chamber located within an interior volume of a device housing, the detection chamber comprising a volume defined by the sensor surface and an opposing surface spaced apart from and facing the detection surface; and

a waste reservoir (chamber) located within the interior volume of the device housing, the waste reservoir in fluid communication with the detection chamber (see paragraphs [0017], [0018], [0022], [0023], [0028], [0062], [0068], [0074]-[0076], [0089], [0090], [0100], [0143], [0144], [0150], [0153], and [0172]).

However, Warthoe et al. fail to teach the inclusion of flow front control features that controls progression of a leading edge of a bolus of material moving across the detection surface, wherein the flow control features comprise discrete structures protruding from and separated by a land area, on the opposing surface of the detection chamber.

Buechler teaches a diagnostic device for detecting the presence or amount of a target ligand in a sample, wherein the device comprises at least a sample addition reservoir 2, a reaction chamber 4, a diagnostic element 6, which includes a capture zone, and a used reagent reservoir 7 (i.e. waste chamber). The diagnostic element can comprise one of a plurality of different types of biosensor elements, including a surface acoustic wave sensor. Further, the structure of the diagnostic element comprises opposing surfaces 8 and 9, wherein at least one of the surfaces includes fluid control means 18, which are designed to control the flow (i.e. progression) of the reaction mixture in the device as it moves across the diagnostic element (i.e. detection surface). More specifically, the flow control means causes the volume of the reaction mixture to flow over the capture zone of the diagnostic element at a rate which allows for optimum capture of reagents onto the capture zone (see Figures 1, 1D, and 2; column 3, lines 61-66; column 4, lines 49-63; column 7, lines 6-15 and lines 31-41; column 14, lines 54-60; and column 20, lines 42-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the system of Warthoe et al. an opposing surface of the detection chamber that comprises flow front control features as taught by Buechler because Buechler teaches the benefit of including flow control means 18 on an opposing surface of a diagnostic element comprising a capture zone, wherein the diagnostic element is part of a biosensor system, because the flow control means control the flow of a reaction mixture within

the device by causing the volume of the reaction mixture to flow over the capture zone of the diagnostic element at a rate which allows for optimum capture of reagents onto the capture zone.

With respect to Applicant's claim 2, Warthoe et al. teach that the surface acoustic wave sensor can be a shear horizontal surface acoustic wave sensor (see paragraphs [0061]-[0062]).

With respect to Applicant's claim 3, Buechler teaches that the flow control means can comprise discrete structures protruding from and separated by a land area on the opposing surface of the diagnostic element (see Figure 1D; and column 14, lines 54-60).

With respect to Applicant's claim 6, Buechler teaches that the used reagent reservoir (waste chamber) can include an absorbent material to contain the used reagent and prevent it from flowing backwards into the system (see column 20, lines 42-52; and column 21, lines 17-21).

With respect to Applicant's claim 7, Warthoe et al. teach that the housing further includes a capillary structure, such as a channel, located between the detection chamber and the other chambers or reservoirs, i.e. waste reservoir (see paragraphs [0144], [0150] and [0172]).

With respect to Applicant's claim 8, Buechler teaches the inclusion of a vent (see column 8, lines 55-57).

With respect to Applicant's claims 12 – 17, the system of Warthoe et al. includes one or more sealed modules, wherein each module comprises an exit port attached to the housing through one or more module ports that open into the interior volume of the housing, wherein at least one module contains a liquid isolated from the interior volume of the housing, wherein said liquid can comprise a selected reagent or lysing reagent, and wherein at least two sealed modules

can be connected together (i.e. first and second chambers) with a seal isolating the modules from one another and at least one means is provided for moving material located within at least one of the modules into the interior volume of the housing (see paragraphs [0100], [0113], [0117], [0143], [0144], [0150], [0152]-[0156], and [0175]-[0177]).

8. Claims 9 and 48 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270), as applied to claims 1 and 8 above, and further in view of Hodges et al. (US 2003/0180814).

The Warthoe et al. and Buechler references, which were discussed in the 103(a) rejection above, fail to teach the inclusion of a closure element operably attached to the vent.

Hodges et al. teach an immunosensor assay device, which comprises a reaction chamber 22, a detection chamber 38, and an aperture or vent 30 that is covered by a piercing layer. The vent allows for controlling the flow of fluid from the reaction chamber to the detection chamber, wherein when the vent, which is initially closed, is opened by means of a needle, trapped air within the system is released into the atmosphere allowing for the sample to flow from the reaction chamber and fill the detection chamber (see Figures 1 and 2; and paragraphs [0015], [0045], and [0059]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the device of Warthoe et al. and Buechler a closure element attached to the vent as taught by Hodges et al. because Hodges et al. teach the benefit of including a piercing layer (i.e. closure element) over a vent provided within an immunosensor device, wherein the device includes at least two chambers, in order to control the flow of fluid

within the chambers of the device, wherein when the vent, which is initially closed, is opened by means of a needle, trapped air within the system is released into the atmosphere allowing for the sample to flow from one chamber and fill a second chamber.

With respect to Applicant's claim 50, Hodges et al. further teach the inclusion of a plurality of openings for the vent (see Figure 4; and paragraphs [0062], [0063], and [0071]).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270), as applied to claim 1 above, and further in view of Beebe et al. (US 2003/0077836).

Warthoe et al. and Buechler further fail to teach that the device includes a fluid monitor operably connected to the housing.

Beebe et al. teach an apparatus for monitoring the environment within a microfluidic device, wherein the apparatus comprises a body and at least one channel for accommodating the flow of fluid therethrough. The apparatus further includes at least one monitor structure within the channel, wherein the monitor structures allows for detecting and monitoring any change, i.e. chemical, temperature or electrical, of the fluid flowing within the channel of the device (see Figures 1 and 6; Abstract; and paragraphs [0029], [0031] and [0041]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the device of Warthoe et al. and Buechler a fluid monitor structure as taught by Beebe et al. because Beebe et al. teach the benefit of including at least one monitor structure within a channel of a microfluidic device in order to allow for detecting and

monitoring any change, i.e. chemical, temperature or electrical, of the fluid flowing within the channel of the device.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270), as applied to claim 1 above, and further in view of Ohman et al. (US 2005/0042766).

Warthoe et al. and Buechler further fail to teach the inclusion of a magnetic field generator capable of providing a magnetic field proximate the detection surface.

Ohman et al. teach a microfluidic system comprising a substrate and at least one flow path, wherein a sample fluid is applied to the substrate and flows along the at least one flow path. The system can further include a magnet arranged in or around the flow path(s) in order to trap and retain magnetic particles or substances at desired locations in the flow path. In addition, the magnetic particles can be coated with substances having a biological affinity for a particular target analyte (see Abstract; and paragraph [0069]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the detection surface of the device of Warthoe et al. and Buechler a magnet (i.e. magnetic field generator) as taught by Ohman et al. because Ohman et al. teach the benefit of including a magnet within a microfluidic system comprising a sample flow path in order to trap and retain magnetic particles or substances at desired locations in the flow path, wherein the magnetic particles can be coated with substances having a biological affinity for a particular target analyte.

11. Claims 18, 19, 22, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270), as applied to claim 1 above, and further in view of Tisone (US 2006/0292304).

Warthoe et al. and Buechler fail to teach that the one or more modules include a plunger that is movable via an actuator operably coupled to the plunger, wherein movement of the plunger towards the exit port opens the exit seal such that material from the at least one module exits through the exit port into the interior volume of the housing.

Tisone teaches a method and apparatus for dispensing reagents onto a substrate, wherein the apparatus includes at least one pump 22 that includes a reagent for dispensing into the system and onto the substrate. The pump includes a plunger 64 that is operably coupled to an actuator. The plunger is moved axially in order to force reagent out of the pump housing and into an exit tube 70. The actuator is used in conjunction with the plunger in order to precisely regulate the amount and/or flow rate of reagent that is forced out of the pump housing (see Figures 1A, 1B, and 5; Abstract; and paragraphs [0016], [0018], [0019] and [0052]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the device and modules of Warthoe et al. and Buechler a plunger and actuator operably coupled thereto as taught by Tisone because Tisone teaches the benefit of including a plunger within a housing chamber (i.e. module) containing a reagent, wherein the reagent is dispensed into a system comprising a substrate, and wherein the plunger is operably coupled to the actuator in order to move the plunger axially and force reagent out of the housing chamber, because the use of an actuator in conjunction with a plunger in a housing

chamber containing a reagent allows for the precise regulation of the amount and/or flow rate of reagent that is forced out of the housing chamber via the plunger.

With respect to Applicant's claim 51, the system of Warthoe et al. includes one or more sealed modules, wherein each module comprises an exit port attached to the housing through one or more module ports that open into the interior volume of the housing, wherein at least one module contains a liquid isolated from the interior volume of the housing, and wherein at least two sealed modules can be connected together (i.e. first and second chambers) with a seal isolating the modules from one another and at least one means is provided for moving material located within at least one of the modules into the interior volume of the housing (see paragraphs [0100], [0113], [0117], [0143], [0144], [0150], [0152]-[0156], and [0175]-[0177]). Warthoe et al. do fail to teach the inclusion of a plunger, wherein movement of the plunger towards the exit port opens the exit seal such that material from the at least one module exits through the exit port into the interior volume of the housing. However, this inclusion of a plunger is considered obvious to one of ordinary skill in the art for the reasons discussed above with respect to Tisone.

12. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270) and Tisone (US 2006/0292304), as applied to claims 18 and 19 above, and further in view of Beebe et al. (US 2003/0077836).

The Warthoe et al., Buechler and Tisone references, which were discussed in the 103(a) rejection directly above, fail to teach that the device includes a fluid monitor operably connected to the housing.

Beebe et al. teach an apparatus for monitoring the environment within a microfluidic device, wherein the apparatus comprises a body and at least one channel for accommodating the flow of fluid therethrough. The apparatus further includes at least one monitor structure within the channel, wherein the monitor structures allows for detecting and monitoring any change, i.e. chemical, temperature or electrical, of the fluid flowing within the channel of the device (see Figures 1 and 6; Abstract; and paragraphs [0029], [0031] and [0041]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the device of Warthoe et al., Buechler and Tisone a fluid monitor structure as taught by Beebe et al. because Beebe et al. teach the benefit of including at least one monitor structure within a channel of a microfluidic device in order to allow for detecting and monitoring any change, i.e. chemical, temperature or electrical, of the fluid flowing within the channel of the device.

With respect to Applicant's claim 21, Tisone teaches the inclusion of a controller operably coupled to the actuator (see paragraphs [0052] and [0053]).

Allowable Subject Matter

13. Claim 52 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 52 recites that the "plunger opens the exit seal by piercing or tearing," which is not taught by the prior art of record. In addition, Warthoe et al. teach that their sealing ports, which allow for the introduction of fluids into any of the modules of the invention further allow for

subsequent closure of the port to avoid loss of the sample (See paragraph [0177]). Therefore, it would not have been obvious to include a plunger that pierces or tears the sealing port of Warthoe et al. given that they prefer closure of the port after introduction of the fluid into the modules of the device.

Response to Arguments

14. Applicant's arguments filed March 22, 2010 have been fully considered but they are not persuasive with respect to the 103(a) rejection of the claims as being unpatentable over Warthoe et al. (US 2004/0072208) in view of Buechler (US 6,156,270).

Applicant argues (see pages 25-28) that a *prima facie* case of obviousness has not been established for rejecting Applicant's independent claim 1 because neither Warthoe et al. nor Buechler teach the amendments to claim 1, which require a "fluid control feature that controls progression of a leading edge of a bolus of material moving across the detection surface." However, this argument is not found persuasive.

While it is agreed that Warthoe et al. fail to include any fluid control features within their device, the Buechler reference was combined with Warthoe et al. in order to remedy this deficiency, wherein Buechler teaches a diagnostic element that comprises opposing surfaces 8 and 9, wherein at least one of the surfaces includes fluid control means 18, which are designed to control the flow (i.e. progression) of the reaction mixture in the device as it moves across the diagnostic element (i.e. detection surface). More specifically, the flow control means causes the volume of the reaction mixture to flow over the capture zone of the diagnostic element at a rate which allows for optimum capture of reagents onto the capture zone (see Figures 1, 1D, and 2;

column 3, lines 61-66; column 4, lines 49-63; column 7, lines 6-15 and lines 31-41; column 14, lines 54-60; and column 20, lines 42-52). Therefore, it was determined that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include with the system of Warthoe et al. an opposing surface of the detection chamber that comprises flow front control features as taught by Buechler because Buechler teaches the benefit of including flow control means 18 on an opposing surface of a diagnostic element comprising a capture zone, wherein the diagnostic element is part of a biosensor system, because the flow control means control the flow of a reaction mixture within the device by causing the volume of the reaction mixture to flow over the capture zone of the diagnostic element at a rate which allows for optimum capture of reagents onto the capture zone.

It is further unclear why the fluid control means of Buechler does not teach the amendment to claim 1 requiring the "flow front control feature [to] control progression of a leading edge of a bolus of material moving across the detection surface." The fluid control means 18 of Buechler, which can comprise various shapes (see Figures 1D; and column 15, lines 18-21), is positioned within the diagnostic element 6 (detection chamber) in order to decrease the flow rate of the reaction mixture as it flows across the diagnostic element and capture zone (see Figures 1D and 2; column 14, lines 53-67; and column 15, lines 1-23). Therefore, the fluid control means of Buechler does in fact control the progression of the material moving across the detection surface. Although, Buechler fails to specifically teach that the flow control means controls the progression of a "leading edge of a bolus of material," this limitation relates to the intended use of the device and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Because the flow control means or structure of Buechler is capable of performing this intended use of controlling the "progression of a leading edge of a bolus of material moving across the detection surface," the structure or flow control means of Buechler meets this limitation in the claim.

It is further noted that one of the structures of the flow control means of Buechler presented in Figure 1D corresponds to the flow control feature disclosed by Applicant as exemplary of a suitable flow control feature (see Figure 4B of instant Application). Therefore, this further evidences that the flow control means of Buechler is capable of performing the intended use of the instant claim 1.

In conclusion the 103(a) rejections over Applicant's claims are maintained because a *prima facie* case of obviousness has been established for rejecting Applicant's claim 1.

Conclusion

15. No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACQUELINE DIRAMIO whose telephone number is (571)272-8785. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on 571-272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jacqueline DiRamio/
Examiner, Art Unit 1641

/GAILENE R. GABEL/
Primary Examiner, Art Unit 1641

4/29/10